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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

CUPRIC TEST PELLETS.*

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At a meeting of the Clinical Society of London, held January 23d, 1880, Dr. Pavy introduced to the notice of the profession a new qualitative test for sugar; strictly speaking, a new form of an old test, for it was nothing more than Fehling's solution transferred into a solid form; but the method of obtaining this form was not explained.

As is well known, of all the tests for sugar in the urine the copper tests are the best, at least when delicacy and precision are aimed at. The best of these are Fehling's or Pavy's solutions, which contain cupric sulphate in combination with an alkaline tartrate, and in such a condition that when brought in contact with grape sugar, at a temperature of 100° Cent. (212° Fahr.), the cupric salt is reduced to its lower oxide (cuprous oxide).

These solutions, although of well attested value, have one great objection, viz., the change which takes place when kept for any length of time, or when light and air have access to the fluid. This change allows the cupric sulphate in solution to become deoxydized when the fluid is boiled, without necessarily the presence of sugar. Another slight objection is that the stopple of the bottle in which the solution is kept is apt to become fixed unless in constant use.

*Exhibited to the Philadelphia Pathological Society, March 25th, 1880.

These points were given by Dr. Pavy as his reasons for undertaking the incorporation of the ingredients of the ordinary test solution into a solid and permanent form; and at last, after many fruitless attempts, his efforts have been crowned with success, as shown by the presentation of his "cupric test pellets" to the Society, as above stated.

The great practical use of these pellets at once suggested itself to me, and I endeavored to have some made in this country, that their use might be made practicable without the great expense of importation.

In the report of Dr. Pavy's remarks* no mention is made of any formulæ, so it is fair to suppose that the doctor himself was ignorant of the processes by which he arrived at the result, stating that "his chemist surmounted all obstacles," etc. Therefore it is impossible for me to say whether the pellets to which I now call attention are made in the same manner as the English. I suggested the idea to Mr. McKelway, chemist, having first called his attention to the matter, and desired him to make the necessary experiments, in which he has been so successful, and it is, therefore, through his aid I can now present to the profession the "cupric test pellets," being not only a convenient and practical means for detecting the presence of sugar in the urine, but also one for obtaining the exact amount; a quantitative, therefore, as well as a qualitative test.

Qualitative.—For detecting the presence of sugar proceed as follows: Place a pellet in a test tube, add a small quantity of water (better distilled), heat until perfect solution is obtained,

*British Medical Journal, February 7th, 1880.

when a clear, deep blue fluid will be the result. Then proceed in the same manner as when using Fehling's solution—for, in fact, it is now almost identical with it—add a few drops of the suspected urine, and if glucose be present, upon boiling, the cupric sulphate which is held in solution becomes deoxydized by the sugar present, and we have the cuprous or sub-oxide, which shows itself by the change in color, first as a yellowish precipitate, due to the hydrated sub-oxide, which subsequently loses its water and becomes the red sub-oxide.

Precautions.—The same precautions are, of course, necessary here, as when using any of the copper tests.

The English pellets, up to this time, have been prepared only for qualitative analysis; we have, therefore, advanced a step in being able to determine the amount as well, as each pellet represents accurately five milligrams of grape sugar.

Quantitative.—The quantitative analysis is performed by the volumetric process in the same manner as with the ordinary copper test solutions. The only simplification by using the pellet in this form of analysis is that it does away with the necessity of measuring or weighing, which is necessary when either Pavy's or Fehling's solutions are employed.

Approximative.—With this new form of test a very accurate approximate result can be arrived at, which is practicable, simple, and requiring but a few moments for its accomplishment, and will, therefore, doubtless, meet a long-felt want to the busy practitioner, who may not have a laboratory at his disposal, or the time required for quantitative analysis by the ordinary methods.

Allow the urine to be tested to drop slowly into a large test tube, containing one cupric pellet in solution, at a boiling temperature, until the cupric sulphate is entirely deoxydized, which will be known by the disappearance of the blue color. Now, as the amount of sugar required to accomplish this result is known, the only thing that remains is to have some means of determining the quantity of urine used. This can be done by using a graduated pipette or a minim glass.

It may be mentioned here that it is better to dilute the urine, as then the test becomes more accurate, and the precise moment when the blue tint leaves can be more readily determined.

Example.–For example, fill a pipette graduated in cubic centimeters with a solution of one part urine to nine parts distilled water. Then keeping the test solution (one pellet having been dissolved) at a boiling point, over a spirit lamp, allow the diluted urine to flow slowly into the test tube until all blue disappears, when a glance at the pipette will indicate that it has taken, for example, 10 c.c. to accomplish this, therefore 10 c.c. of diluted urine represents 5 milligrams of diabetic or grape sugar; but as only $\frac{1}{10}$ or 1 c.c. of this solution was urine, then in 1 c.c. of urine examined there is .005 gram of sugar. If in 1 c.c. of urine there is .005 gram of sugar, in 1000 c.c. of urine there must be 1000 x .005 gram or 5. grams. In this way, with a little calculation the amount of sugar in any given quantity of urine can easily be determined. If a minim glass is used it is only necessary to substitute the word minim for cubic centimetre.

By using a little precaution, keeping the pellets in a well stoppered bottle, free from moisture, they may be kept for an indefinite time. It is better to avoid shaking them too much, as the edges may become broken and interfere with the accuracy required for quantitative analysis.

Before closing I must mention that Dr. H. G. Piffard* has suggested, under the title of "A New Glycosuric Reagent," a pasty mass containing cupric sulphate, crystallized tartrate of sodium and potassium and sodic hydrate, which is said to remain permanent. But here again we have a qualitative test only.

The test pellets can be procured at 1410 Chestnut street.

214 *S. Fifteenth street.*

* New York *Medical Record*, March 23d, 1880.

DIPHTHERIA.

BY GEORGE HILL, M.D.,
Of Hughesville, Pa.

Read before the Lycoming County (Pa.) Medical Society.

It shall be the leading purpose to portray, in the plainest manner, through the following paragraphs, some views and items arrived at during a long experience with this disease. It made its appearance in this valley, Muncy, Lycoming county, Pa., in the year 1856. During eighteen years of town and country practice, previous to that date, I had never recognized a case of diphtheria. Since then there has been scarcely a year without some traces of this affection. It may, therefore, be said to have become a domesticated arrangement.

The primary cause having thus made a permanent lodgment, it only requires the necessary combination of conditions to render this *causus morbi* active. The best literature of the day, on

this disease, very clearly establishes for its origin a specific parasite, and justifies the conclusion that its spores enter, or impinge upon, the system, through the medium of the atmosphere, which spores, almost without exception, fix their abode upon a delicate mucous surface, always near the outlets of the body. When the requisite inflammation has been established, these spores suddenly appear as a fungoid growth, amid a deposit of disordered secretions. A suggestive feature in point here is that this cryptogam is only known to locate where the atmosphere has free access. Another is the great rapidity of its growth and early decay, the latter being indicated by the unmistakable odor of decomposition, which never fails, in a genuine attack, to occur as early as the second, or at most the third, day, when not antagonized by proper treatment. An interesting question arises, where shall we look for the matrix that gives nourishment to this subtle entity, in its earlier and migratory state, inasmuch as the disease is able to seek all localities? A very malignant form was met last fall, in a family living in a very primitive style, in a ravine of pines and hemlocks. The oldest son, aged fifteen, died, and two others were rescued only, I think, by early and thorough medication. Is it in the house or out? Perhaps both, although a strong point in favor of its domestication is that diphtherial fever prevails, proverbially, in its most malignant types, during the colder months, often in midwinter, when all growth and activity of the lower organisms without are dormant and harmless. The full measure of the mischief of months' accumulations under carpets, and gradual saturation of papered walls, is not accounted for. More especially, the constant vaporizing effects of the dining room and kitchen, to which, in many houses, is added the weekly steaming of wash day, in winter, thus rendering those walls a rich nidus for the growth of moulds, at all seasons. Let it, however, be understood that filth, gaseous, liquid or solid, of itself can never be the ultimate cause of any zymotic disease. It would be just as reasonable to expect to produce black diamonds, as a solitary germ, by any possible combination. Filth, per se, in this regard, can play no other part than that of a nidus of development, and as such should always be removed.

The exciting cause is, or may be, a cold, which so readily produces the necessary inflammation, upon which is quickly developed a growth and deposit, the true pathognomon of this disease. And it is doubtful whether the germs would ever spring into activity in the human system without an exciting cause, producing the condition referred to. Diphtheria, as met with here, therefore, is often ushered in with chills, fever and headache, mostly all slight, sometimes only in part or altogether unnoticed, followed by inflammation and tumefaction of the faucial regions. Between twelve and twenty-four hours after the first symptoms of derangement there appears quite suddenly a coating, which, in simple cases, is of a milk-white color, involving in all cases the tonsils first. In graver types the faucial inflammation is more intense and darker in color, and the tumefaction greater, and the coating leaden or ash colored, even possibly black, involving not only the tonsils, but the uvula, the nares and the roof of the mouth, and presenting in extreme cases the resemblance of tabby velvet, the latter state being always caused by the drying influence of the atmosphere, in breathing through the mouth. Often, from early septic influence, the glands about the throat are swollen and tender, and in the worst of such cases an extreme tumefaction occurs, that may extend from the lower jaw to the middle of the sternum. Rarely, the patient may have contracted, simultaneously, a croupal inflammation. The trachea in that case is certain to be invaded, and is always a most dangerous complication, even when the disease might otherwise be regarded as simple. When scarlet fever is epidemic, this disease is sometimes attended with a perfect scarlet rash, which has misled some to suppose these affections to be one and the same. Uncomplicated diphtheria is never characterized by great heat, while scarlatina is the hottest of all diseases.

Although the disease is at first local and localizing in its inception, it soon becomes general, inasmuch as the early results themselves, through absorption, become causes of general disturbance, leading to a wide range of constitutional possibilities. Two forms of poisoning follow each other. First, from the specific fungus; and secondly, from sphacelated tissue.

The destruction of tissue in simple cases may stop with the epithelium, but often the mucous membrane, muciparous follicles and connective tissue of the tonsils may perish within three or four days, and these organs be destroyed. Is diphtheria contagious? Certainly not, as compared with measles, mumps, or smallpox. The germs in the diseases last named are of themselves septic, and consequently able to set up special diseased action on their own account. But the reverse holds in typhoid, intermittent and diphtherial fevers. In the three last named the germs, being innocuous, may exist in the system an

indefinite period, consistent with health. Hence, disturbing influences are essential to their further development.

After what has been said it rationally follows that a decided antiseptic and parasiticidal treatment should be pursued if success is to be attained. The first and great remedy is chlorine, which in all cases, especially critical ones, must be given in full doses and often repeated during at least the first forty-eight hours of the treatment. And among the essential adjuncts and combinations are sulphur, carbolic acid, tannic acid, glycerine, spiritus frumenti, quinine and lime steaming. The chloric and other salts have only lost caste for lack of direct influence, more especially in malignant cases, where often the first forty-eight hours must determine the mastery by medication. For further elucidation a few cases will be cited.

M. B., girl, aged 13. Seen first on Saturday morning; commenced complaining last evening, with chills, headache and sore throat, having a restless night, tongue lightly coated, pulse 90, tonsils very much swollen and coated white, uvula relaxed, constant desire to clear the throat, deglutition painful. Ordered—

℞. Aquæ chlorinii, ℥ ij
Sodii sulpho-carbolat., grs. cxxviij
Glycerinæ, ℥ j
Aquæ, q.s ℥ iv. M.

Two teaspoonfuls to be taken every two hours, diluted with water, to be held a moment well back before swallowing. Also sulphur sublimatum, grs. xv, mixed with a teaspoonful of syrup, every six hours, until an apparent effect is produced. Locally, finely pulverized tannic acid applied to the exudation growth with a moistened swab, every four hours; and as an occasional gargle—

℞. Saturated sol. sodium chloride, ℥ j
Water, ℥ iij
Glycerine, ℥ j. M.

Case seen daily. Tuesday morning exfoliation complete; better; internal medication reduced one-half; glycerite of borax reduced with water, substituted as a gargle. Friday morning nearly well. Internal medication discontinued. Monday returned to school. One week previous a brother, aged ten years, held and treated correspondingly. Result the same.

George W., aged 10 months, seen first on Tuesday; sick three days; glands enlarged, with external tumefaction; refuses to nurse; throat coated; offensive odor; had been taking solution chlorate of potash from the first. Ordered—

℞. Aquæ chlorinii, ℥ v
Sulpho-carbolate soda, gr. xv
Glycerinæ, ℥ ss
Water, q.s ℥ ij.

Sig.—Dose, a teaspoonful every two hours.

Throat swabbed with glycerite of tannic acid, reduced with water, every four hours. Sulphur sublimatum grs. v, in syrup, every six hours, as a laxative. Thursday morning brighter; odor disappeared; partial exfoliation of deposit. Friday, throat clean; first mixture reduced one-half. To gratify the anxious madam chlorate of potash in solution was allowed, up to perfect exfoliation, then stopped, on account of the irritation it produced. Saturday, child nurses well. Sunday, medication ceased.

Miss Lizzie R., aged 18, January 7. Complaining four days; all the time taking chlorate potash solution; growing rapidly worse; countenance leaden; inflammation dark red, tonsils scooped, much enlarged, touching each other; deposit extensive and ragged, ashy in color; glandular sympathy and strong odor of decomposition. Septic poisoning fully initiated. Ordered—

℞. Aqua chlorinii, ℥ iij
Sulpho-carbolate of soda, gr. clx
Glycerine, ℥ j
Water, q.s ℥ vj.

Sig.—Dose three teaspoonfuls every two hours, held a moment before swallowing.

Sulphur sublimatum grs. xx in a teaspoonful of syrup every six hours, as a laxative. Gargle, glycerite of tannic acid ℥ j and carbolic acid glycerite ℥ ij, mixed and reduced one-fourth with water, applied every four hours. Also glycerite of carbolic acid to the enlarged glands about the jaws, and a thin slice of bacon applied to cover the parts. 9th, bowels moved freely; sulphur discontinued; no worse. 10th, odor neutralized and throat looking better. 11th, exfoliation complete; all medication reduced one-half. 15th the scooping of the tonsils filling and closing up, and patient dismissed from regular attendance.

Just two weeks previous to this writing Mr. B. called at my office with a hasty summons to see his daughter, aged 21, who, he said, was *very ill with the black diphthery*. Had been complaining two days only. The throat and tonsils very much tumefied. Presenting an excavation in the left tonsil, three lines in depth, with an irregular but well defined edge, oval in shape, long diameter nine lines, short, seven, coated densely with a black deposit, caused, of course, by contact with devitalized blood. The opposite tonsil also scooped and covered with gray. Swallowing was very difficult but not painful,

which is notably common in bad cases. This patient, however, did well on the above line of treatment. The parts have assumed quite a healthy appearance (14 days), though there is still enlargement of the tonsils and the excavations not quite filled, but the young lady has taken her place at the counter. How was this rapid destruction brought about? Surely not by ulceration as generally understood; but by a rapid devitalization of tissue caused by the mycelium of the cryptogam penetrating it and causing death as far as it goes. An analogue, to some extent, may be found in the habits of the rusts and mildews of the vegetable kingdom. Instance, a certain white mould common to several of the roots and tubers. The half-grown potato may present patches the size of a split pea, less or greater, which, in a dry season, only feeds upon and destroys the skin, but always leaves scars and depressions on the surface of the tuber, and by so much only damaging the crop; but when favored with the proper amount of shade, heat, and moisture, the mycelium, acquiring strength sufficient to penetrate the subjacent structure, the result, in a short time, is the death of more or less of the crop by soft gangrene.

The use of whisky is never required in the treatment of ordinary cases of diphtheria, and should not be resorted to until there is a call for temporary support. The "whisky treatment" of this disease, as it is called by some of the doctors, is a "delusion and a snare." The first because of its inadequacy to neutralize or cure. The second for its evil aspects morally. When the capillary and peripheral nerve forces begin to flag and fail, then also is quinine no longer a non-essential, which will be indicated by local chill—cold toes and cold knee-caps, the sure concomitants of local congestions.

There is another class of cases to be noted, occurring seldom, but oftener among boys than girls, by reason of their greater exposure. When either ordinary or membranous croup occurs at the inception of this disease, as before hinted, the trachea is certain to be invaded. The treatment of such cases will not vary from that of others of like intensity, except in one particular, which will here be described by presenting two or three cases.

December 25th. Was called to see C. R., boy, aged eight years, with the usual symptoms of a malignant case. Tonsils, uvula and nares involved; deposit ash colored, breathing labored, croup cough; had been sick twenty-four hours. To the usual treatment was added the following: about an ounce and a half of quick lime, fresh from the kiln (not air slaked), is put into a tin cup, upon which is poured half a pint of cold water. Over this is inverted a funnel, not so closely as to exclude the air. To the tip of the funnel is attached a tube with a suitable mouth-piece. The rising steam to be inhaled for a period of half an hour; if the steam fail, to be quickly renewed. An intermission of half an hour is allowed, and then the steaming resumed as before; and so on, day and night, with the utmost perseverance. An emetic of syrup of ipecac. will, at various times, be required, to expel detached fragments and avert the impending suffocation that must necessarily occur in all such cases. At the end of fifty hours the deposit seemed about all expelled from the trachea, but one hour later emesis was again produced and there was expelled the delicate pseudo-membrane, a perfect cast of the windpipe, and the breathing at once became calm and free. During all these trying hours ice was freely allowed, as it always should be when there is heat and dryness of the mouth and throat. Also spiritus frumenti, a teaspoonful, with a table-spoonful of milk every half hour, and a grain of quinine every three hours. All that need be added is, that the boy made a good recovery.

March 2d. Called to see W. S., boy, aged four years. Diphtheria, with croup cough and labored breathing; rapidly growing worse; countenance livid and anxious. Instituted at once the additional lime steaming and emesis, which were faithfully carried out, by the watch, for a period of thirty-nine hours, when every fragment which seemed to offer any impediment to breathing was removed. There was no false membrane, and this child recovered in seven days sufficiently to be removed with safety to another locality.

February 11th. Was requested to see C. R., boy, aged twelve years. Tonsils, uvula and nares involved; the visible parts densely coated; the voice a whisper, and a corresponding croup cough; livid and distressed countenance. Lime steaming at once instituted, and other treatment as in Case one of this form, carried out perseveringly, through many hours of impending suffocation. But at the end of forty-seven hours a perfect cast of the trachea was ejected, with scarcely a particle of diphtheritic matter adhering, bringing with it a relief so sudden and so great as to set aside all further anxiety for the patient. This boy was able to be out in two weeks. The sequel from this attack was a nasal gleet, from which the boy has not yet (two years) been entirely relieved.

The above cases, with two or three others, have occurred to the writer within the last four years, and the dates are given to show the season when they are most apt to occur. During the first five days of December last I attended a boy, aged four years, with a well marked attack of diphtheria. On the next day after dismissal he was allowed to go out to play, and croup set in, which grew worse for several days, but subsided at length, under treatment. Would this have been diphtheritic croup if it had occurred five days earlier? The answer has been indicated.

Lime steaming is not to be universally recommended, except in the cases indicated, on account of its caustic effects. Where the hastening of tardy exfoliation is desired, and it always should be, even where there is no danger of suffocation, a handful of sage or hops, over which is poured boiling water, is altogether preferable, and often found to be very soothing if the steaming is properly followed up. In many cases where inadequate treatment has been pursued relapses are liable to occur over a period of a year or more. For this reason, and others of still greater moment, the physician should always insist on seeing his patient at least once a week, until a normal state of the throat has been fully established. By what process of reasoning tinct. iodine, tinct. of iron, or nitrate of silver should still be used locally by some, is incomprehensible, unless it be to destroy still further that which is already on the "ragged edge" of vitality. Among the sequelæ are not only numerous erratic disturbances of the nervous system, but diphtheria has become a leading factor in producing chronic follicular disease of the faucial regions, hypertrophy of the tonsils, relaxed uvula, as also that opprobrium passing by the name of chronic catarrh. In prophylaxis, good hygiene stands first. When the disease takes on an aggravated type in a family, an effort at elimination should be made by giving the other members full doses of aqua chlorinii and sulpho-carbolate of magnesia or soda, three times a day; and two to twenty grains of sulphur, according to age, every evening, for a period of five days. But the greatest immunity yet found here is a good recovery.

In conclusion, the saturating treatment here indicated, so far as such procedure is prudent and possible, has been adopted by Dr. G. A. Hill, lately of this place, now of Toledo, Ohio, and myself, for a period of nearly five years. During this time not a croupal case has been lost by either of us; and the general death rate, as compared with other years, has been so vastly lessened, that I trust this itself will in some measure justify this infliction.

A FEW NOTES ON THE THERAPY OF HEAT.

BY J. W. HICKMAN, M.D.,
Of Delta, Pa.

The heart of the frog will continue to pulsate for many hours after its removal from the body; and the rapidity and vigor of its contractions may be varied at will by changes of temperature. At a low temperature it will quickly reach a standstill. If, however, the experimenter subject it to a gradually increasing heat, it may be urged up to, or even beyond its usual life-rate. Nor is this true only in the extirpated heart of the frog; it may be shown, in a variety of ways, that the same fact holds good generally, and that heat is an excitant of the heart in the living patient as well. Thus heat is a powerful cardiac stimulant. In proof, who has not known of the almost instantaneous relief following the præcordial application of a hot poultice in cardiac embarrassment?

Again, through the effect of heat upon the circulation it becomes, in a certain sense, a stimulant of the respiratory function. If the body be immersed in a hot bath until the temperature of the blood be raised, the intensity of the discharge of the nerve-cells of the respiratory centres will be increased, and the energetic action of dyspnœa will be induced. M. Forster arrived at the same result by heating the blood of animals above the normal by the application of warmth to the carotid artery alone. In fact, we everywhere observe a close conformity between the temperature of the body and the activity of the respiratory process. How strikingly, for instance, does the hurried respiration of the febrile condition contrast with the slow and labored breathing of conditions attended with a temperature below the normal. Our knowledge of the dependence of all the vital processes in warm-blooded animals upon the proper heat of their bodies, should furnish us suggestive and invaluable data applicable in ordinary every-day practice.

The proper observance of this dependence would save the life of many a feeble, gelid infant born into the world prematurely, or even at term, as is the case not infrequently. The application of a high degree of dry heat is the correct and only availing procedure in such instances. It is essential, indeed, that we recognize the import-

ance of this principle wherever, in connection with embarrassment of the respiration or circulation, or both, there is a tendency to coldness, either as manifested by the sensations of the patient or by the thermometer. For example, in cases of chronic bronchitis with emphysema there is, through defective heat-production, a continual inclination to chilliness. That this deficit be artificially supplied is the very first indication in the treatment. Otherwise, should we attempt to urge on these lagging respiratory and circulatory centres by the usual agents, as digitalis, ammonia, or strychnia, we will find them largely fail to be of their wonted service. Our first care must be to have the patient kept in a proper temperature, say about 60° or 65° F., but not higher, for obvious reasons. Such subjects should, of course, be clad in an under suit of flannel, or silk, which many prefer, in that it is less burdensome. Hot drinks and warm food will also subserve a valuable purpose. If the circulation be specially labored hot poultices will effectively stimulate the cardiac ganglia. By attention to these seemingly trivial points much relief may be given to the patient and a reliable foundation established upon which to base such other treatment as may seem to be required.

Identically the same is true of all patients suffering from any extensive disease of the respiratory organs; for it is indispensable to the comfort of such sufferers that the temperature of their bodies be not allowed to fall below that of health. Wherever, in fact, there is any impediment to a proper performance of the circulatory or respiratory act, attention to this matter is of the utmost importance. As an example, the impeded breathing of the asthmatic is less difficult in warm than in cold weather; and the severity of the asthmatic paroxysm itself will be materially alleviated by the institution of proper measures to supply the necessary deficit in heat production. Of course, where the means and surroundings of such patients whose ailment is a thoroughly seated one will permit, or where there is a tendency to chronicity, these indications may be best met by urging a change of residence to a warm, equable climate. It must not for one moment be supposed, however, that a uniformly warm temperature is the only desideratum in the selection of a proper clime for this type of sufferers. Nor will any single locality be found beneficial to all patients afflicted with the same malady.

After surgical operations of serious import, it is essential to see that the patient's apartment be not only thoroughly ventilated, but that it be kept warm, the temperature being gauged by the thermometer. If necessary, in addition to this, the attendant must place about the patient jugs of hot water or bricks well heated. Especially must this point be borne in mind after operations about the respiratory organs or in opening the abdominal cavity. Many ovariotomists of the present day are careful to have their patient surrounded during the operation by hot sand bags or similar appliances, thinking it better to sustain the temperature than to attempt to restore it after its depression by shock. Under any circumstances, of course, heat would be contra-indicated in active hemorrhage. Nor in this statement do we except the injection of hot water for the purpose of checking post-partum hemorrhage; for that this application is worthy of confidence is, as yet, unproven, indeed, its supposed value is decidedly chimerical. In cases of narcotic poisoning, drowning, etc., where it is necessary to employ artificial respiration, it is eminently requisite that the patient's body be kept warm by a high surrounding temperature, by local appliances, or suitable garments; for all that we gain by the artificial breathing may be continually lost through a cold or falling temperature.

In the stupor and coma of uræmia or narcosis, after the institution of the usual remedial measures, the alternate application of dry heat and cold to the neck will be found a serviceable auxiliary.

In muscular rheumatism much good will often accrue from the ironing of flannel placed over the affected muscles; as high a degree of heat should be applied as the patient can possibly bear. We do not mean to say that this simple measure will in many cases take the place of the treatment by hypodermic injections of morphia and atropia, nor that by muriate of ammonia; but simply that it will be found a most efficient adjunct.

Bucknill and Tuke have advised a warm bath (about 95° F.) of thirty minutes for the sleeplessness and excitement of various forms of insanity, and report its soothing effect as remarkable. One of the most satisfactory agents in the treatment of chronic metritis, save when there is relaxation of the vagina with a large and spongy uterus, is the hot water injection, used about three times a day; it is essential that a large quantity of water be used each time.

As a dressing in recent lacerations and contusions no agent is at all comparable to warm water, either simple or medicated as may seem best. Heat has also a very wide application in

the local treatment of inflammation. It has the advantage of being entirely safe, even in the hands of the laity, where the use of cold is not unfrequently fraught with extreme danger. Indeed, as a rule, it will be found that hot applications in their various forms are productive of much more good than cold. They are more soothing and are free from any danger of producing metastatic action. After all, however, heat, like every other valuable agent, has its special indications and contra-indications. In those of a nervous, irritable temperament it will be far preferable to appliances of a cold character. It will also be preferable to cold where the inflammatory process has already made considerable advancement and especially where suppuration threatens. In all instances, however, it is highly proper that the practitioner be guided by the sensations of his patient.

OSSEOUS OCCLUSION OF THE VAGINA.

BY D. J. SNYDER, M.D.,
Of Scio, Ohio.

At 6.30 A.M., December 17th, 1879, I was summoned in haste to a neighboring village, to attend Mrs. Jane S., in labor. On my arrival, at 8.30, I was informed by the attending women that labor had been in progress since 6 A.M., and that they were very much concerned lest my arrival would be too late. I immediately made an examination, when my index finger came in contact with a hard, unyielding opening, about an inch and a half from the anterior part of the vagina, sufficiently large to admit it with ease.

My first impression, that the os was rigid, and that in consequence delivery would be slow and tedious was, upon further examination, proven not correct. Slight hemorrhage occurred during each pain. By exploring beyond the opening, the point of the finger came in contact with the true os, dilated as large as a silver dollar, somewhat rigid and tense; the head of the fœtus presenting, but could not make out the position definitely, on account of its spongy condition. My attention was then directed to the vaginal ring exclusively, as without its removal delivery through the natural channel would be impossible.

I obtained the following history of the lady: About five years ago, when only seventeen years of age, and in her first confinement, was in travail nearly four days. The head of the child during the greater part of that time was occupying the pelvic cavity. Not very skillful accoucheurs attempted the delivery by cephalotomy, using a hook instead of the forceps. They succeeded finally, and the lady made a very good recovery, with the exception that the sequel will show. Soon after she had incontinence of urine, which ever after annoyed her very much. She would not submit to an examination in order to ascertain the true nature of the trouble; which was in all probability a vesico-vaginal fistula. She had never worn a ring pessary, nor menstruated but once, about three years ago, since the birth of her child. Had always enjoyed good health, which her personal appearance fully corroborated, for she was well nourished.

I found the vaginal ring fully half an inch thick, rather more oval than round, diameter on outside about two inches, and as hard and tense as bone. Could easily explore the posterior part of it, which appeared like an uneven ring pessary firmly imbedded in the vagina. That it was of firmer structure than cartilage was beyond a doubt.

I determined that hysterotomy would have to be resorted to in order to save the life of the child, and probably that of the mother, and immediately dispatched messengers for Drs. Custer, McGavran and Stephenson. Drs. Stephenson and McGavran responded promptly, and fully corroborated my diagnosis and prognosis. Pains came on at regular intervals of from three to five minutes, and were excruciating in the extreme.

At 2 P.M. I left the case in the doctors' care, and went home to procure instruments. I returned in two hours, and found the unfortunate sufferer sinking rapidly; so rapidly, that in our judgment the operation would only hasten her end. She died at 6 P.M., after twelve hours in labor. An operation after death, to save the child, if possible, was not permitted.

There are several points of interest in this remarkable case; remarkable because of the bony structure of the ring and of the rapidity of the collapse.

Accoucheurs occasionally find cartilaginous rings in the vagina which yield readily and are easily divided with the knife. In this case it was impossible so to do; no incision could be made, whatever.

How was this ring formed? I have the following theory: In her previous confinement, the head of the child being large, the vagina not easily dilatable, a fold was formed around the occiput, which, upon constant pressure, produced congestion followed by inflammation, with the exudation of lymph, producing fibro-cartilage, which in due course of time became osseous.

Why the rapidity of the collapse? Twelve hours after labor commenced she was dead! I remarked that during each pain she had slight hemorrhage. Could it be possible that the placenta became detached, and death ensued from internal hemorrhage?

Will the profession please report any similar case that may have come under their observation, and the probable cause or causes of the change of structure in the present case.

OXYGEN INHALATIONS IN MEMBRANOUS CROUP.

BY JOSEPH B. POTSDAMER, M.D.,

Assistant of the Laryngoscopic Department, Jefferson Medical College Hospital.

This article is intended to show the value of oxygen in the treatment of membranous croup. The false membrane in the trachea forming a mechanical obstacle to the admission of air to the lungs, the blood is improperly oxygenated, which constitutes the chief danger in this disease. If we mix oxygen with ordinary air, a small quantity of the mixed gases supplied to the lungs will furnish the blood with a sufficient supply of the gas in question. It will be suggested that this theory, like many others, will not hold good in practice. Before attempting to write this article, we have put the theory to the test, which it has withstood beyond all our expectations. I will now describe a case of true croup in which we tried the efficacy of the gas.

Dr. J. Solis Cohen was called in consultation, by a friend of his, on Tuesday, January 20th, 1880, the case being one of membranous croup. Tracheotomy was performed by Dr. Cohen on that day, although the physicians had no hope of saving the child's life, it being in a very precarious condition. No tracheotomy tube was used, a piece having been cut out of the trachea. The child being of affluent parents nothing was spared to lead the case to a favorable termination —physicians, nurses, and all things necessary, were constantly at hand.

On Friday, January 23d, the child's face appearing cyanotic, Dr. C. ordered oxygen to be supplied to the child. This was done by getting a reservoir of the gas, then filling a gum bag with it, and then supplying the child from the bag by means of a gum tube attached to the latter and held over the opening in the trachea. The gas was supplied to the child at short intervals, from time to time, night and day. Under the influence of the oxygen the child rallied and did well until the following noon, Saturday, when symptoms of heart clot, and later on those of congestion of the brain, began to manifest themselves. At 3 P.M. the same day Dr. C. left the house. He had barely gone, when death apparently set in, cessation of respiration and absence of pulsation taking place. We removed the steam apparatus and the canopy from the bed and brought the mother to the child's bedside, where she fainted. After removing her, going to the child's side, I saw it make an attempt to gasp. I instantly turned the oxygen on, full pressure, holding the supply tube immediately over the opening in the trachea, performing at the same time artificial respiration. At the end of five minutes from the time I began I had the infinite pleasure of seeing the child begin to breathe naturally and the pulse to beat regularly. Three minutes elapsed from the time the child was declared dead until artificial respiration was begun. Not trusting the ordinary air, I continued supplying the oxygen at short intervals, but in spite of this precaution, at 3.40 P.M. the respirations became shallow, the pulse feeble and the lips blue. Five minutes later, that is, 3.45 P.M., the respirations ceased, the pulse and heart beat were no longer perceptible, and the face and neck became of a purplish hue. The lips, eyelids and borders of the wound were almost black, and the child became somewhat rigid. This time, without hesitation, I pronounced the child dead. The room was cleared, as before, the child was laid out, the jaws were tied, when, having my hand upon its chest, I thought I felt its heart beat. I instantly took the handkerchief from the jaws, turned on the oxygen and used artificial respiration as before. In five minutes the child was breathing naturally. This attack was the nearest approach to death that I ever saw. At 4.15 P.M., my friend Dr. Steinbach having dropped in, I related the circumstances of the case to him, but he appeared somewhat skeptical. At 4.30 P.M. he had the opportunity of witnessing an attack similar to the first described. I may here state that all the subsequent attacks were like the first, and not the second. At 5.30 P.M. the child had another attack. Dr. C. having dropped in at 7 P.M., we related the circumstances of the case to him, but he said nothing. At 7.30 P.M. the child had still another attack, Dr. C. being present. After the child had rallied, Dr. C. said that had he not witnessed an attack he would have taken our statements regarding them *cum grano salis*. When this attack came on Dr. C. declared the child to be dead, which was likewise done by the attending physician when he witnessed an attack

at 8 P.M. The child had two subsequent attacks, at 8.30 and 8.45 P.M. respectively.

These attacks of suspended animation, if we may so call them, were caused by membrane plugging up the left primitive bronchus. The membrane was subsequently removed by Dr. Cohen. The plug formed owing to the suspension of the steam for two hours on Saturday morning. The steam was suspended on account of an accident to the apparatus which generated it. Oxygen was used in all the attacks, in a manner similar to the first.

The next day the child was much better. It did well until Monday, January 26th, at noon. At this time convulsive movements began to manifest themselves, showing congestion at the base of the brain. These movements continued to increase until 4 P.M. From this time on they gradually lessened in severity and the child passed away quietly one hour later.

The child would most likely have died from imperfect aeration of the blood on Friday, January 23d, had it not been for the oxygen inhalation. Had our steam apparatus been in perfect working order on Saturday, we would undoubtedly have prevented the heart clot and the death-like attacks. The repeated resuscitation of the child was due to the use of the gas. But the heart clot having advanced too far, death was ultimately causd by the washing of emboli into the brain.

I firmly believe, had it not been for the accident with the steam on Saturday morning, the child would most likely be among us to-day.

In most cases of croup the children cannot have the proper attention. In these cases it is of no use to test the efficacy of oxygen. But in cases like the one described, where all which science or money can procure is at our disposal, I believe that "oxygen," if used, will play an important part in the treatment of the disease.

Medical Societies.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.

February, 1880.

Dr. Richard A. Cleeman presented a full and thorough report on the Meteorology and Epidemics of Philadelphia for the year 1878.

Dr. Arthur V. Meigs read an account of a case in which Heart Clot occurred as a Consequence of Uræmic Convulsion, and Tumors in the Heart. It was as follows:—

L. F., aged 38 years, born in New Jersey, married, a peddler by occupation. Admitted to the medical ward of the Pennsylvania Hospital on August 7th, 1879; he states that his health has not been good for three or four years past; during that time he has been troubled with frequent micturition, and has had attacks of asthma. He would have an attack during the night, and be able to go about again as usual in the morning. Once his feet and legs swelled. There can be no distinct history of convulsions obtained, although he has frequently had what he calls "spells." He denies ever having had syphilis. The night before admission he fell in a convulsion, which was followed by stupor lasting a considerable length of time.

On admission, the patient was almost collapsed, the skin being blue, the extremities and face cold. He was retching and vomiting violently, and was at once put to bed, when the vomiting soon ceased, although he continued cold and blue. The heart's action was excessively slow and irregular, there being, when the patient first came into the ward, two or three respirations taken for each beat of the heart. His intelligence was perfect. He was ordered on no account to raise himself in bed, and was given milk punch every half hour, for the first hour or two, afterward to be continued regularly every hour, and a hypodermic injection of $\frac{1}{120}$ of a grain of atropia with $\frac{1}{6}$ of a grain of morphia. This was to be repeated at night if necessary. There was a loud, blowing, systolic murmur heard at the apex of the heart. The urine, upon examination, was found to be acid, sp. gr. 1.030, and contained a slight amount of albumen. The microscope showed white and red blood corpuscles and hyaline casts. P.M. Pulse, 30; respirations 20.

August 8. He is very much as yesterday, except more calm and quiet, and the vomiting has entirely ceased. The pulse is excessively slow, and he complains of frequently feeling faint, when things swim before him. He is still deeply cyanosed, and the extremities are cold. Ordered infus. digitalis, f. ℥ ij, three times daily. The murmur heard over the heart is still loud at the apex, but now seems to extend more toward the base, and is rushing and rasping in character, louder toward the second right costal cartilage than at the apex, and very curiously prolonged. A.M., pulse 34, respirations 20, temperature, 100°; P.M., pulse 36, respirations, 18, temperature 98°.

August 9th. Continues in much the same condition, and has frequent syncopal attacks. Ordered five grains of carbonate of ammonium every two hours. A.M., pulse 40, respirations 18, temperature 98°; P.M., pulse 36, respirations 18, temperature 98°.

August 10th. A.M., pulse 36, respirations 18, temperature 98½° ; P.M., pulse 36, respirations 18, temperature 98°.

August 11th. Pulse 36, respirations 16, temperature 97½°; P.M., pulse 38, respirations 18, temperature 97½°.

August 12. Pulse 36, respirations 18, temperature 97½° ; P.M., pulse 36, respirations 16, temperature 98°. Since the last note the patient has continued in the same condition until this evening, when, without other warning, he shrieked and died almost instantly, at half past seven.

A post-mortem examination, made about sixteen hours after death, showed the rigor mortis very well established. The lungs were congested,

and showed emphysematous spots along the margins, and some œdema of the lower posterior parts. The heart was much dilated, and weighed, when the clots were removed, one pound one and a half ounces. In the right auricle a clot was attached in the auricular appendage, and extended through the tricuspid orifice, partly red and partly white, principally white, however, and red at its ends. In the septum there was a mass as large as a walnut, half in the auricle and half in the ventricle. The leaflets of the tricuspid valve were normal in thickness, but showed a few small yellow patches. The right ventricle was dilated, and a long, tough, yellowish-white clot was attached to the columnæ, and extended out into the pulmonary artery. This clot was about three or more inches long, and its end divided as though it had extended into the right and left pulmonary arteries. Unfortunately it was cut off in taking the heart out, so it was not ascertained how much longer the clot may have been. The pulmonary valves were natural. The left auricle was studded with yellow patches, and in the septum (as in the right heart, and probably the same mass) there was a large, yellow, irregular, knotted-looking tumor lying in the auriculo-ventricular opening, and even larger than that seen in the tricuspid opening. The muscular tissue was pale and soft. The edges of the mitral valves were thickened, and there was a large knob lying under one of the cusps. The aorta was thickened and almost sacculated, so irregular was its shape, and covered with a yellowish-looking deposit. The aortic valves showed slight yellowish patches, but were not materially thickened; the noduli Arantii were large, particularly one of them. There were large nodes under two of the leaflets of the valve, one of them being the size of a large bean, but they did not appear to have interfered with its action. The chordæ tendineæ and columnæ carneæ of the mitral valve were enlarged and thickened. The liver was enlarged, congested and thickened; weighed four pounds three ounces. The spleen slightly enlarged and hardened. The kidneys enlarged, very red, congested and fatty. The capsule peeled off with some slight difficulty, and the surface underneath was mottled with stellate veins and small white spots; weight of the two together fourteen and a half ounces.

On examination with the microscope the heart clot showed no cellular element, and appeared to be a gumma of ante-mortem formation.

Dr. Alfred Stillé read an obituary memoir of the late Dr. Isaac Hays.

Editorial Department.

Periscope.

Penetrating Wound of the Knee Joint.

The *Medical Press and Circular*, January 28th, 1880, contains a report by Mr. John Sutcliffe, M.R.C.S., House Surgeon in the Royal Infirmary, Manchester, of the following two cases:—

James M., aged twenty-four, a strong, healthy-looking young man, was admitted into this hospital September 11th, 1879, having sustained an injury to his knee by a bar of iron falling upon it. On examination, it was found that he had a compound fracture of the left patella. The bone was broken transversely across its middle; the external wound was two inches and a half long, the outer end being a little to the inner side of the middle line. There was escape of synovial fluid. The finger could be passed between the fragments of the patella into the interior of the joint. Under the spray the joint was syringed out with a solution of carbolic acid, one in twenty, and dressed according to Lister's method. The limb was put up in a back splint, with a foot piece and two side splints. No sutures were applied, nor was any drainage used. An ice bag was placed over the dressings and kept there for fifteen days. The wound was dressed next day, and every alternate day afterward, until October 5th, from which date it was considered to be only necessary to dress it twice in each week. The temperature during the first week, on two occasions, in the evenings, reached 100.4° Fahr., after which it fell to and remained about normal.

On October 17th the wound was completely healed. A starch bandage was applied, and he was sent to the Convalescent Hospital, at Cheadle, on November 8th.

He returned to the Hospital on December 16th, "to show himself," when the patella was found to be firmly united and the knee joint pretty freely movable. He was ordered to wear a back splint. During the progress of the case the organization of the blood clot was beautifully seen. There was a slight discharge of sero-sanguineous fluid, but no pus.

John M., aged 40, a joiner, came to the accident room at the Hospital, on Sept. 12th, at 6 P.M., having accidentally wounded his knee with the sharp point of an axe. On examination, the wound was found to be about one inch in length, and situated above and somewhat to the inner side of the right patella. There was escape of synovia, and the finger could be passed above the upper margin of the patella into the knee joint. He refused to be made an in-patient, so the wound was dressed with glycerine and carbolic acid, and he was taken home.

At 10 P.M. he returned, desiring to be admitted.

Shortly afterward the joint was syringed out with the carbolic solution, one in twenty, under the spray; the mode of dressing was Lister's, and the whole limb was put up in a back splint, with foot piece and two side splints. An ice bag was kept over the knee until the 26th.

Until the 30th the wound was dressed every other day, but afterward only twice in each week. The temperature gradually rose to 101.4° Fahr., on the evening of the 15th, after which it fell to slightly below normal, about which point it remained.

On October 14th the wound was perfectly healed, and on the 21st he was discharged, with all the movements of the joint as perfect as they were before the accident.

The Treatment of Transverse Fracture of the Patella.

The *Lancet*, November 29, 1879, says—

The discussion on the propriety of cutting down upon and wiring together the fragments in cases of transverse fracture of the patella, which was carried on at the Medical Society on the 17th inst., was of great interest and importance, and demands the careful consideration of surgeons. The cases brought before the Society were of two distinct kinds; in one class, a badly-united fracture having rendered the limb entirely or nearly useless, the operation was performed with the view of restoring the lost function, and with success. All the speakers concurred in their approval of this step. But with these cases others were reported in which the same operation had been performed for recent fractures, in which, so far as was stated, no other plan of treatment had been tried, and in which the ultimate result was a matter for hope, or, at any rate, only of doubt. On the advisability of this step, issue was taken. Mr. Lister advocated the operation as the only treatment holding out a certain prospect of a good result in all cases, but insisted that it should only be undertaken by surgeons who were morally certain that no decomposition would follow the operation. He urged that, if he could abolish risk, it was the surgeon's duty to treat recent cases in the same way as had proved successful in the treatment of old cases with a useless limb; while, if all risk was not abolished, it was as wrong to do it in the one case as the other. The facts are these: By some of the well-known methods of treatment a very few cases of bony union have been obtained; in many instances, close fibrous union, leaving the limb little if at all impaired, has resulted from their employment; while, when the fragments are even widely separated, the limb may be as useful as before, as in the cases related by Mr. Bryant. A surgeon may therefore always hope, by comparatively mild measures, to obtain a good result, and we believe this will be more frequently obtained if greater attention is given to relieving the distention of the synovial sac, which was long since shown to be a great factor in the separation of the fragments. Under these circumstances it appears to us to be opposed to the sound principles of surgery to practice what must be a serious operation, to accomplish that which has often been achieved by safe methods of treatment. It is of great importance for surgeons to weigh carefully Mr. Lister's words. He teaches that operations can by antiseptic surgery be made absolutely safe; that no one is justified in operating who cannot previously assure himself that he will preclude the possibility of decomposition occurring in the wound—for what is true of this operation is of course true of all; and this being so, other methods of treatment, which are commonly called milder methods, if liable to fail or give imperfect results, are not to be employed, but are to be in all cases superseded by the certain, the absolutely safe, antiseptic operation. Applying Mr. Lister's argument to the case of aneurisms, he would never pause to attempt the cure of an aneurism by the method of compression, but would at once apply a ligature; and the practical outcome of the antiseptic treatment will be that surgical therapeutics will consist almost exclusively of operations. But can a surgeon have that confidence in his own infallibility that Mr. Lister presupposes? We think not.

The Treatment of Arsenical Poisoning by Subcarbonate of Iron.

Charles A. Leale, M.D., of New York, in the *American Journal of the Medical Sciences*, Jan. 1880, gives an account of four cases of poisoning by arsenic, successfully treated with large doses of common iron rust. He was led to adopt this plan of treatment from an inability to procure the ferri oxidum hydratum. He recommends the following procedure:—

1st. Quickly remove as much as possible of the poison from the stomach, by means of some non-irritating liquid, viz: raw eggs with water, oat-meal water, etc., insisting on the emetic effect being rapidly produced, and if necessary, use the stomach pump.

2d. As an antidote give two ounces of the powdered subcarbonate of iron, or common iron rust in fine powder, mixed with sufficient water to allow it to come in contact with the entire mucous membrane of the stomach, thereby to have the iron either absorb or surround by its mechanical affinity all traces of the arsenic. In three or four hours, give a free dose of castor oil, which will prevent impaction of the iron in the intestinal canal. Apply artificial heat by means of hot fomentations to the abdomen, and by friction promote capillary circulation. Relieve the pain by morphia. Avoid all irritating foods, and give emollient drinks until recovery follows, which, by prompt, efficient action, will, in the majority of cases, ensue.

Experimental Study on the Treatment of Hepatic Colic.

M. Laborde, in *Gaz. des Hôpitaux*, September 16, 1879, sums up the results which have been obtained from physiological experiments in regard to hepatic colic. 1. The excretory bile canals are endowed with a power of contraction; they are consequently able to contract spasmodically on the application of a stimulus, whether this be applied directly or indirectly. The contractility resembles that of unstriped muscular fibre, and the existence of such fibres in the walls of the canals is clearly shown by histology, and is in perfect harmony with the results obtained from experiment. 2. The mucous membrane of these channels is exceedingly sensitive, and this occasionally manifests itself under the

influence of more or less intense stimuli, by painful symptoms, and by reflex phenomena, shown directly by spasms of the channels themselves. 3. The phenomena are particularly induced by the presence and contact of foreign bodies, such as biliary calculi, whose spontaneous migration is thus rendered more difficult. These changes of place, when they occur, are only accomplished after a longer or shorter period, and they possess the peculiarity that the foreign bodies are always carried toward and finally into the gall-bladder. 4. Anæsthetic and anti-spasmodic medicines are best adapted for the treatment of this morbid state, of which the mechanical conditions can readily be realized by experiment. 5. These remedies, more especially morphia, chloroform, and hydrate of chloral, act by exercising at one and the same time an anæsthetic and paralyzing influence, which produces a relaxation of the spasmodic contraction, a distribution of the spasmodic canals, and an accumulation of the bile, which acts upon the foreign body by means of a *vis a tergo*, and forces it onward toward the intestines. 6. The combination of morphia with hydrate of chloral or with chloroform, *i.e.* the simultaneous administration of these remedies, is the most effectual way of obtaining the required results, which are the insensibility of the biliary canals, the prevention of pain, and the favorable influence upon the migration and rapid extrusion of the extraneous substances.

Enlarged Clitoris, with Rudimentary Vagina.

The Cincinnati *Medical News* for March, 1880, contains the following report of a case simulating hermaphrodism, by Dr. Carson—

Some time ago a woman with a well-developed child, about five years of age, came to me and said there was something the matter with the child's vagina. Upon examination I found a clitoris about one inch in length, and upon each side a large prominence which I thought might be testes, but which, upon examination, proved to be nothing other than a prominence caused by an excessive supply of adipose tissue. Raising the clitoris I found it hung between the thighs, covering a small opening about the size of the head of a large pin. I could pass a probe about an inch downward, and by curving the probe, it entered a distance of about one and a half or two inches downward and backward, showing a rudimentary vagina to be present.

The mother asked my advice with regard to an operation. Of course, I advised against it. She wished to know if the child was a hermaphrodite. I told her it was what is usually termed a hermaphrodite, but there was nothing more than an excessive development of the clitoris. The prominences on each side of the clitoris were very marked, and looked as if they might contain testes, but were nothing more than adipose tissue. The opening extended from that small opening, which was no larger than the head of a pin, to the anus. There was a little opening at the end of the clitoris, which appeared to be very much like an opening into the urethra, but in attempting to pass the probe, I found it was merely a blind sac. There were also folds of skin which seemed to give it the appearance of the penis exposed. On the whole, it presented very much the appearance of a penis. On examination I found the opening into the bladder back behind the clitoris, in the natural site, may be a little further advanced.

Therapeutic and Hygienic Management of Consumptives.

James T. Hibberd, M.D., of Richmond, Ind., in a paper on the above subject, which appeared in the St. Louis *Medical and Surgical Journal*, February 5th, 1880 sums up his conclusions as follows:—

1st. Consumption is a self-limited disease; and

2d. It should, therefore, be managed through its stages as is done with other disorders of its class.

3d. Statistics point to the conclusion that rather more than 11 per cent. of consumptives will recover if left to nature entirely.

4th. Clinical study leads to the inference that judicious treatment may increase this percentage of recovery.

5th. A survey of the popular professional methods of management raises the presumption that they are far from the best.

6th. Consumption has no specifics and demands but little medicine, the only drugs required for their essential and direct action being the alkaloids of cinchona and opium, and perhaps iron.

7th. Recognizing the real nature of consumption, the profession should set their faces firmly against the multitudinous remedies prescribed in many text-books, and positively repudiate the numerous nostrums now so industriously forced on the attention of practitioners by manufacturing chemists and other mercenary persons.

8th. Rational simplicity in therapeutics is desirable in all diseases; it is a scientific and a humane necessity in consumption.

Local Anæsthesia in Endo-laryngeal Operations.

The London *Medical Record* informs us that Zawerthal's experiments upon dogs, to obtain a local anæsthesia of the larynx, either by inhalation or by direct application of chloroform, ether, morphia, hyoscyamine, hemlock, etc., have led him to the following conclusions: 1. It is very seldom that complete local anæsthesia can be obtained. 2. The attempts made at producing it are attended by great risks of grave constitutional effects or serious local inflammation. 3. These dangers and complications differ according to the substances employed; very great danger of poisoning if solution of morphia; of laryngitis, if choloroform. The author has not met with better success in practice. He has been able to obtain an imperfect degree of anæsthesia only in twenty-seven out of forty-seven cases, and complete anæsthesia in five. In fifteen cases he was obliged to abandon his attempts to produce it. The cases in which such attempts have best succeeded are those of division of cicatricial bands.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——In a reprint on the anatomical relations of uterine structures, Dr. T. H. Buckler, of Baltimore, speaks of strangulated veins of the uterus, and the importance of restoring their circulation and function, to prevent engorgement and morbid nutrition.

——Dr. Edward Borck, of St. Louis, read the report on the progress of surgery to the Missouri State Medical Association, at its last meeting. The Report now appears as a neat pamphlet of 10 pp.

——In a reprint on the therapeutic action of quinine, Dr. J. W. Compton, of Indiana, maintains that in pregnant cases the danger is much greater from the disease than from any possible oxytocic effects of this antiperiodic.

——Two late papers by Dr. L. Duncan Bulkley, of New York city, deserve the attention of dermatologists. One is on the nomenclature and classification of skin diseases; the second is on the use of water in their treatment.

——Dr. Laurence Turnbull is the author of an instructive paper on the mastoid region and its diseases, reprinted from the St. Louis *Medical and Surgical Journal*. He discusses its anatomy, pathology and most frequent affections, and adds a number of illustrative cases, with remarks on treatment.

BOOK NOTICES.

The Hair: Its Growth, Care, Diseases and Treatment. By C. Henri Leonard, M.A., M.D. Illustrated. Detroit, 1880. Cloth, 12mo, pp. 319.

This work is divided into twenty-eight chapters, the first five of which are devoted to the chemistry, anatomy and physiology of the hair. Some interesting facts concerning its strength and elasticity are related—thus, we are informed that a single hair of a dark brown color held suspended over four and one-quarter ounces without breaking, and the author estimates that a single head of hair of average growth and luxuriousness, in any audience of two hundred people, will hold supported that entire audience, and yet have a large quantity of supporting power to spare. Its extensibility equals, on the average, nearly one-third its normal length. In chapter vi, the color of the hair is discussed in its relation to race, temperament, hygiene and sociology. It may be interesting to some to know that blondes stand, in the matrimonial market, three chances of failure to complete a life contract, to two chances of failure on the part of their darker-haired sisters. Next come chapters on the growth of hair in singular places, hygienic treatment of the hair, excessive hair growth, turning gray of the hair, discoloring of the hair, baldness, and dyeing the hair. Twelve chapters are then devoted to diseases of the hair and scalp and their treatment. Descriptions are then given of the different modes of dressing the hair, and of the hair of the ancient Assyrians, Egyptians, and the Incas, the last chapter being devoted exclusively to the beard. The numerous illustrations are well executed and add considerably to the value of the book, which contains a large amount of useful information that will be read with interest both by the profession and the laity.

Montreal General Hospital Reports, Clinical and Pathological, by the Medical Staff. Edited by William Osler, M.D., M.R.C.P. Montreal, Dawson Brothers, publishers, 1880. Vol. I, pp. 369.

The Montreal General Hospital has accommodation for 170 patients, and about 1600 in-patients and 15,000 out-patients are treated in the course of the year. The work contains a number of interesting articles, among which we notice: Cases of Leucocythemia (with charts), by Dr. R. P. Howard; Anatomical Abnormalities, by Dr. Francis J. Shepherd; Fifteen Cases of Tumor of Breast, Removed Antiseptically, by Dr. T. J. Roddick; on the Use of Eserine in Ophthalmic Practice, by Dr. Frank Buller; Cases of Cardiac Abnormalities, by Dr. William Osler, etc. Dr. Roddick, in his remarks on Lister's antiseptic method, says that for many years the hospital staff had been almost in despair over their surgical cases. It was exceptional to save an amputation, and even breast and tumor excisions were frequently followed by fatal results; blood poisoning was an every day occurrence. Since the employment of Lister's method they have a record of sixty-four major operations, with two deaths, and he says that "there is no hospital the surgeons of which could have stronger convictions in favor of the antiseptic system than those attached to the Montreal General Hospital." The book contains several illustrations and statistical tables.

THE

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D. G. BRINTON, M.D., EDITOR.

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115 South Seventh Street,
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THE BOGUS DIPLOMA SWINDLE IN PHILADELPHIA.

As at certain recurrent periods the vermin which infest even the best kept houses enliven and increase to such an extent that a prompt recourse to the brush and the broom is demanded, so do the social vermin, the parasites and leeches which cling to every profession, put themselves forward from time to time with such increasing effrontery that they force the advocates of decency and right to repress them with a strong hand.

Such a time has come with the quacks and charlatans whose business it is to manufacture other quacks and charlatans in this city. The continued existence in Philadelphia of three or four pretended medical institutions, whose real business is the sale of diplomas and academic titles, is a disgrace to the city, a blot on the commonwealth, and a stain on the repute of even the best institutions here. Of late these bogus diploma shops have been uncommonly active. We have ourselves received quite a number of letters from this country and England about them; and last week our Mayor, Mr. WM. S. STOKLEY, received a letter from General JOHN EATON, United States Commissioner of Education at Washington, calling his attention to an enclosed letter from ANDREW D. WHITE, United States Minister to Berlin, relative to the sale of bogus medical diplomas in Germany, issued by alleged colleges and universities in this city. General EATON also requested the coöperation of the Mayor in discovering the reputation of "The American University of Philadelphia and Eclectic Medical College of Pennsylvania, JOHN BUCHANAN, M.D., President;" also of "The Philadelphia University of Medicine and Surgery, T. B. MILLER, M.D., (late) Dean," and of "The Penn Medical University or College."

The letter of Minister WHITE states several instances of diploma vending in Germany by these institutions. For example, a Mr. PAPPENHEIM brought Minister WHITE a diploma, engrossed on parchment, in very handsome style, and issued nominally by the "American University at Philadelphia," conferring the degree of Doctor of Medicine upon one Christopher Schuetz, living at Leipzig. It would appear that the diploma was offered to Schuetz, upon the condition that he would pay a sum of money for it. It bears the signature of a number of persons claiming to be professors in the aforesaid university, at the head being the signature of "JOHN BUCHANAN, M.D." Schuetz desired the legation to give him a declaration of its genuineness, which was, of course, refused. To one of these diplomas was attached a notarial certificate from PHILIP A. CREGAR, stating that "The American University of Philadelphia is an institution in good standing." Mr. CREGAR, on being interviewed, said that this certificate was made by him, and in good faith, because BUCHANAN offered to swear to the "genuineness" of the diplomas, and because the Board of Revision of Taxes had exempted BUCHANAN'S college from taxation as an educational institution.

The history of two of these institutions is briefly as follows:—

The "American University of Philadelphia"

and the "Philadelphia University of Surgery and Medicine" were charged before the Legislature, so far back as 1871, with selling diplomas, and acts were passed repealing both charters. "The American University" appealed to the Supreme Court, and the legislative enactment against the concern was set aside, on the ground of unconstitutionality. By a joint resolution of the Legislature, adopted February 13th, 1879, the Attorney General was requested to institute proceedings against these concerns, on account of abuse of their franchises. Both institutions have been time and again charged with disreputable practices. Rev. T. B. Miller's "diploma mill," the "Philadelphia University," was investigated a fortnight ago by the Methodist Conference, and that body found the reverend dean guilty of frauds in the issuance of diplomas, and expelled him from their number. Rev. Miller, it was proven, had made professors for his concern out of students who had been in attendance for very short periods. Both these "universities" have scandalous careers, and have time and again been the subject of newspaper articles.

The newspapers, and *The Press* especially, which ten years ago led off in the effort which has ever since been making to drive Buchanan and his imitators out of the city and destroy their business, have done their duty in the matter, and if the police and the prosecuting officers who have had the dean of the American University in their clutches several times, only to let him go again, would display an equally unrelenting vigor, Minister White and the other diplomatic and consular representatives of the country abroad, who are constantly annoyed by having the Philadelphia traffic in diplomas brought to their attention, would soon have no cause for complaint.

But the fact is, as has been overtly stated in the public papers, and as we have been personally informed by one of the "faculty" of Buchanan's institution, that influences, personal and political, have hitherto prevented the proper authorities from acting efficiently in the suppression of this crime. Another reason for their continuance is in the apparent indifference of the regular medical profession to the existence of these foul growths in their midst. Has the Philadelphia County Medical Society taken any active steps in the matter? We are ashamed to be obliged to answer, No. Have the Trustees or Faculties of the Jefferson or the University of Pennsylvania made any real effort for their suppression? Again the answer is, No.

We can hardly blame the neglect to prosecute these charges on the part of the secular authorities, when the medical bodies most interested stand in a position of apparent indifference.

If the inquiry is put, why such measures have not been urged by the corporate bodies referred to, the only reason we know of is that they have been afraid of the expense; "the clinking of the guinea helps the hurt that honor feels."

Meanwhile, the farce of these "schools" has been unblushingly carried on. Before us lies the announcement of the "Thirtieth Annual Commencement of the Eclectic Medical College of Pennsylvania," which took place March 25th, 1880. "Charge to the Graduates," by Prof. Shultz, M.D.; Valedictory by Prof. Sibley, D.C.L., etc., not omitting music, prayer, benediction, and awarding prizes to meritorious students. The list of these alleged students gives 58 names, and two names are given on whom "honorary" degrees of LL.D. were conferred.

But the rumor goes that this is to be the last Commencement of the "Eclectic." Not that any sense of shame has penetrated the hides of these alleged professors; but they think the time is ripe for a bolder and more sweeping swindle on the profession and public. The whole faculty, from the head centre, Buchanan, down to the janitor, are about to be converted from Eclecticism to "Allopathy," whatever that is. In other words, the concern is to be run in upon the public as a perfectly "regular" institution, and an effort made to gain some sort of recognition from the regular profession. It is whispered that overtures have been tendered to several regular physicians of some standing, in this city and elsewhere, to act as sponsors in this comedy of regeneration.

There is some plausibility in the arguments used. The charters of the Eclectic and Ameri-

can grant wide privileges, wider than could now be obtained from the Legislature, probably.

These charters have been substantiated by the Supreme Court; and if the suits now pending were compromised or withdrawn, and a reformation in the whole faculty carried out, a material difficulty which stands in the way of establishing a third regular medical school in this city would be removed.

We have the best of authority for saying that direct negotiations for the transfer of the charter and franchises of the institution have been made. That any will be found to buy them we hope will prove impossible. The proper and the only course is for the legal authorities of this city to pursue with unrelenting vigor every responsible party in any way connected with this swindling bogus diploma business, until they feel the full measure of the law's vengeance, and then to have all the charters forever annulled.

Notes and Comments.

Therapeutical Notes.

REMEDY FOR NIGHT SWEATS.

T. H. Currie, M.D., of Lebanon, N. H., writes to the *Michigan Medical News*, January 26th, 1880—

For over thirty years I have used the following prescription, without a single failure, in sweats, from whatever cause. In one case a neighboring physician was poisoned while dressing a mortified finger. He suffered untold misery, and was drenched with perspiration for a number of days and his life despaired of. When I saw him I ordered him to be bathed immediately, and repeat once in two hours. The third application stopped all perspiration, and convalescence commenced at once: —

℞. Alcohol, Oj
Sulphate of quinine, ʒj. M.

Wet a small sponge with it and bathe the body and limbs, a small surface at a time, care being taken not to expose the body to a draft of air in doing it.

REMEDY FOR ROUND WORMS.

We find the following in the *Practitioner*, January, 1880:—

Reduce 30 to 50 grams (ʒj–ʒj, ʒ vss) of the sem. cucurb. pepo to a fine powder, and make it into an emulsion with 300 to 500 c.cm. (ʒ v–ʒ viij) of water. Order a fourth part to be taken at night. On the following morning administer five pills of the extract punic. granat. If necessary repeat this treatment for five successive days. In the intervals the rest of the emulsion may be taken.

CHLORIDE OF POTASSIUM IN WHOOPING COUGH.

Jacques Munk, in *Pester Med.-Chir. Presse*, No. 6, 1880, reports favorably on the use of chloride of potassium in from one-half to two-grain doses, given with one-sixth of a drop of laudanum, every two hours.

Leucocytosis of Pregnancy.

The *Lancet* informs us that at the meeting of the Cambridge Medical Society, February the 6th, Dr. Ingle read notes of a case of leucocytosis of pregnancy, with severe anæmic symptoms, which, from the absence of any obvious cause for the anæmia, might have been set down as an example of the idiopathic form of the disease. The patient, aged thirty-three, and near her confinement, showed extreme pallor and weakness; after a natural labor, with very small loss of blood, the symptoms continued, with the addition of fainting fits. The patient had been in a similar state of health before her last confinement, and had been well in the interval. She recovered under treatment with iron. Dr. Bradbury, who had been called in to see the case, had examined the blood, and had found that it did not contain any of the abnormally large or abnormally small or otherwise malformed red corpuscles that were characteristic of pernicious anæmia. On the other hand, the colorless corpuscles were in great excess, being in the proportion of about 50 to 1000 red. The patient had probably been suffering to an excessive degree from the leucocytosis of pregnancy.

The Diagnosis of Insanity.

In a paper on insanity, read before the Medico-legal Society of New York, Dr. George M. Beard has some valuable remarks on the diagnosis of the disease. He observed that there is a factor in insanity which is not physical, but psychical—the factor of serious disturbance of mental coördination—which must be taken into consideration in defining insanity, and which, although dependent upon brain disease, was accepted as the most important factor in determining the question of criminal responsibility. Accepting this factor as an integral part of the definition, he would formulate the result in these terms: "Insanity is a disease of the brain in which mental coördination is seriously impaired." He would insist upon the phrase "seriously im-

paired," because there were many instances in which brain disease produced eccentricity, transient or partial disturbance of cerebral function, or even delusive sensations, without amounting to insanity or rendering the victim *non compos mentis*. There was, indeed, no distinct boundary that could be specified as the limit of sanity and the beginning of insanity, nor was there any symptom or set of symptoms that could be held as conclusive *indicia*, the degree of mental incoordination being a matter of testimony and of experience, to be settled in each case without recourse to general terms.

Yellow Fever as a Ship Disease.

Dr. R. B. S. Hargis, of Pensacola, has written an open letter to Dr. J. C. Le Hardy, of Savannah, in which he says—

I have worked, throughout the entire period of my professional career, at the history and pathology of yellow fever, and it will be my earnest endeavor to afford such proofs to the medical profession, on the ship origin of this plague in the tropical Atlantic as must, in my opinion, prove convincing. But I have no sympathy with clogging the wheels of sanitary legislation for any personal ends or motives of self-aggrandizement.

The National Board of Health has been unfortunate in favoring the view that yellow fever is epidemic in Cuba. The report of the Havana Commission must, before another decade is past, meet, as it deserves, with the strongest condemnation. Such is my opinion on this one point. It is difficult enough to get the Spanish Government to do its duty toward this country, by purifying the Pearl of the Antilles, and how can we hope for their energetic action when an American physician, clothed with all the prestige of authority, assures the world that yellow fever in Havana is inevitable?

Poisonous Trees and Shrubs.

In parks and pleasure grounds it is quite common to find poisonous plants which are dangerous to health and life. At a recent meeting of the Board of Health of this city, the Medical Inspector presented a report in regard to certain trees in Fairmount Park, which he declared were poisonous and should be removed.

Referring to these trees he said: "They are chiefly confined to two species of the *rhus*, the *toxicodendron*, or poisonous oak, and the *venenata*, or swampy sumach. In both of these plants the poisonous principle is very volatile during the time of active growth, and is given off from the green leaves and shoots into the atmosphere in sufficient intensity to poison those susceptible to its influence who come within the radius of the tainted air, while there are but few persons not obnoxious to its poisonous effects from contact.

"The period of greatest activity in the development of these noxious principles from these plants occurs at that season of the year when the park is most frequented. They also yield a berry which children have frequently eaten with fatal results. There is no difficulty in removing these plants.

The Relation of Consanguineous Marriages to Deaf-Mutism.

Dr. P. L. Panum, of Copenhagen, refers, in *Nordiskt Medicinskt Arkiv.*, vol. xi, No. 4, 1879, to a thesis based upon observations made by the author, Dr. Johannes Mygge, with a view to ascertain to what extent, if any, marriages between near blood relations (cousins, second cousins, uncles and nieces, aunts and nephews) influence the health of the offspring, especially with regard to their being productive of children with defective hearing and deaf mutes.

Dr. Mygge first analyzed the family history of 2032 marriages, with the following results:

	Consanguineous Marriages. per cent.	Crossed Marriages. per cent.
Number of children per marriage	3.47	3.54
Number of children with defective hearing, or deaf mutes	1.15	.34
Idiots	2.02	.64
Other defects	10.09	2.06
Died early in life	20.46	17.00

He then analyzed the family history of 1089 marriages, which gave somewhat similar results:—

	Consanguineous Marriages. per cent.	Crossed Marriages. per cent.
Number of children per marriage	3.77	3.65
Number of children with defective hearing	.47	.29
Number of children with mental defects	6.64	.78
Scrofulous and otherwise defective	10.90	3.44
Cripples	.47	.32
Died under ten years	20.85	13.45

Of the 3121 marriages analyzed 4.92 per cent. were consanguineous. Leaving out three parishes where marriages between blood relations are common—amounting in one, on Anholt, to fifty per cent.—the author thinks that the percentage for Denmark is between three and four. About

.06 per cent. of the entire population of Denmark are deaf mutes. Of 477 deaf mutes whose family history he was able to trace 8.52 per cent. were the product of consanguineous marriages. The probability of getting deaf-mute children seems thus to be twice as great in marriages of blood relations as in crossed marriages; and this, the author says, corresponds with the results obtained abroad.

Dr. Panum is of the opinion that consanguineous marriages, per se, do not injuriously influence the offspring, but do so by intensifying family defects existing in both parties.

Inhalations of Benzoate of Sodium, or of Salicylic Acid with Borax, in the Treatment of Pulmonary Tuberculosis.

Dr. D. Müller, a chemist in Berlin, says, in a communication to *Allgem. Med. Central-Zeitung*, February 8, 1880, that he suggested this method of treatment as early as 1876, and that, assisted by his friend, Dr. P. Sachse, he employed it successfully in a case of phthisis, that of a young teacher who had been obliged to give up his position in November 1876. In December he began to inhale, and in May, 1877, he was perfectly cured and resumed his former occupation. Dr. Müller explains the modus operandi of the inhalations as follows: In pulmonary phthisis a portion of the lung tissue is in a state of decomposition, or of alkaline fermentation, which prevents the formation of new cells while rapidly destroying the old ones. Although the nature of this fermentation process is not as yet perfectly understood, it is well known that in the treatment of open wounds, where a similar process is going on, this can be checked by the use of antiseptics, and it follows logically that inhalations of some antiseptic must also produce an inhibitory effect on the fermentation process going on in the lung. Dr. Müller is of the opinion that it is indifferent whether benzoate of sodium or salicylic acid with borax be employed, the effects of both being antiseptic, but he prefers the latter, as being most effective and perfectly safe. Dr. Sachse reports ten cases treated by this method; of these seven were either cured or materially improved, in one there was no improvement, and two died. Several patients who are under his care at present have been inhaling too short a time to enable him to pronounce upon the results. The sittings last from five to ten minutes, twice daily, the solution made use of being of the following strength: Salicylic acid 2.5 parts, borax 2 parts, boiling water 100 to 150 parts. The borax renders the acid very soluble in water. Dr. G. Fronmüller, Sr., states that he has employed the benzoate of sodium inhalations in a number of cases. In some of these there was at first a decided improvement, but this was only temporary, and the inhalations had in most cases to be discontinued on account of dyspnœa. He thinks, however, that in a limited number of cases the inhalations may have a palliative effect.

The Hypodermic Use of Morphia.

A western journal has criticised in a very vehement manner the statement of Dr. Barr, in the REPORTER (November, 1879), that half a grain of morphia is not an excessive hypodermic dose for an adult in cases of severe pain. The critic, like many others of the class, did not read the article in question sufficiently closely to understand it. The writer was not attempting to teach the minimum dose, nor the usual dose under ordinary circumstances, nor the precautions supposed to be known to every tyro, but the great value of a bold and decided dose in pain of exceptional severity. That small quantities of this and most other medicines have, in certain idiosyncrasies, led to serious results, is true; but he would be a weak therapeutist who would let such events intimidate him from giving relief with a decided hand. We have rarely noted the weakness of a certain kind of criticism more conspicuously shown.

Popular Medical Literature.

Some old fogies in this country still oppose popular medical instruction; but even in Russia such obscurantism is giving way. The Board of Health of St. Petersburg has just offered 300 roubles as a prize for the best essay on a subject of hygiene, to be written in the Russian language and popular style, for use in village schools and among the common people. This is a long step in the right direction, and worthy of imitation by various nations who speak depreciatingly of Russian civilization.

Treatment of Intestinal Catarrh in Children.

We learn from *Allgemein Med. Central-Zeitung*, February 11th, 1880, that Dr. Demme, in the sixteenth annual report of the hospital for children at Berne, points out that in severe forms of intestinal catarrh in children who have been deprived of the mother's milk too early, and fed artificially, it is not always sufficient to put them to the breast again. In such cases alcohol, especially pure cognac, must be given in combina-

tion with creasote, opium or benzoate of sodium. The following is his prescription:—

℞.	Cognac,	gram 2.5	(38 minims)
	Creasote,	gram 0.01	(about ⅙ grain)
	Pulv. gummosi,	gram 1.5	(23 grains)
	Aqu. dest.	gram 50	(about ʒ 13)

To be given during the twenty-four hours between the giving of nourishment.

For children a few weeks old the quantity of alcohol may be increased to from 3 to 5 grams (46 to 77 minims) daily. It is the analeptic and antiseptic effect that is wanted.

Blood Casts of Bronchi.

The *Lancet* informs us that at the meeting of the Pathological Society of London, held February 17th, Dr. S. West showed some blood casts from the bronchi of a man, aged forty-three, who is still alive. The patient complained of dyspnœa and cough, and there were found slight induration and softening of the apex of the left lung. After two months there was profuse hæmoptysis, which recurred two months later, and shortly afterward he had great dyspnœa and expectorated the casts exhibited. He recovered, and has been free from hæmoptysis for six months. The clots are real blood clots, and not stained croupous clots. They are very rare, no case being recorded in the Society's Transactions, and their occurrence being denied by Dr. Peacock; they have generally been the precursor of fatal hæmoptysis.

Injection of Corrosive Sublimate in Syphilis.

The *Medical Press and Circular*, February 4th, 1880, gives the following formula, as recommended by M. Sterne, of Breslau:

℞.	Bichlor. mercury,	.25 grams	(gr. iv.)
	Chlor. sodium, pure,	2.05 "	(ʒ ss)
	Distilled water,	50	about (ʒ j, ʒ v).

One cubic centimetre (about 15 minims) to be injected daily.

This method causes the syphilitic symptoms to disappear in a relatively short time; it necessitates the employment of only small quantities of mercury; it does not produce local inflammation; the general condition is in no way troubled by it; the stomatitis is insignificant; it is easier and better than inunction.

Human Filariæ.

In the *Lancet*, March 6th, 1880, we are told that the new investigations of Dr. Manson, communicated to the Quekett Club, appear to afford positive proof of a singular habit on the part of the filariæ. These microscopic worms periodically pass in and out of the circulation. Dr. Manson gives a table showing the hours of the day and night at which they are either present or absent in the blood. The worms are remarkably punctual in keeping to their appointed times. The evening inrush to the circulation commences about half-past seven, the overcrowding attaining its maximum at midnight.

Correspondence.

The Operation of Ovariotomy.

Ed. Med. and Surg. Reporter:—

I have a suggestion in regard to the operation of ovariotomy, which I propose to submit for the consideration of the profession, if you deem it worthy of a place in the Reporter. My suggestion is that, in the operation of ovariotomy, the tumor be enucleated in all cases in which there are any reasons to suspect adhesions or a short pedicle; in fact, I am inclined to think that, by the aid of additional knowledge and experience, it will, ere long, become the orthodox way of doing it. By this method the possible adhesions between the peritoneal covering of the tumor and other parts contained within the abdominal cavity will be "flanked." The peritoneal covering of the tumor, with all its adhesions to the adjacent parts, is left intact, with the exception of the small incision in it through which the tumor is extracted. By this method the extensive wounding of the peritoneum, caused by the breaking up of the adhesions, the difficulty and danger of their breaking up, and the subsequent difficulty of controlling the possible hemorrhage from those parts, will all be avoided. It may be objected that the enucleation of the tumor will cause a greater wounding of the peritoneum, and be followed by a greater amount of hemorrhage, which will be more difficult to control. My answer to this is, that while the adhesions are more extensive, they are not so *firm*, and the hemorrhage will not be great, if any, and will be easy to control, because it will be mainly, if not entirely, capillary; besides, I think the danger from inflammation from wounds on this side of the peritoneum will be much less than from wounds on the other side. I am aware that Dr. Miner, of Buffalo, N. Y., has written quite extensively on this subject, but I do not understand him to advocate the stripping off, *entire*, of the peritoneal covering of the ovarian tumor, but simply the enucleation of such parts of it as are either strongly adherent to adjacent parts or necessary to lengthen the pedicle, so as to enable the operator to bring it out and secure it at the lower end of the abdominal incisions.

This suggestion may not be new to the profession, but it is original, so far as I am concerned. The idea occurred to my mind after having witnessed a very blundering operation of ovariotomy, in which the operator made an incision through the peritoneal covering of the tumor, and had

partly separated it from the tumor, making it necessary to complete the operation by enucleation, before he, the operator, had developed his manifest inability, through ignorance of the anatomy of the parts involved in the operation, through lack of previous preparation of instruments, sponges, etc., through lack of knowledge how to proceed with the operation, and lastly, through having "primed" himself with too much brandy, to complete the operation, and it had to be finished in the main by those who had been invited to assist and as spectators. I do not think the operator was aware of the fact that he had made his incision through the capsule of the tumor, as he afterward talked of the shortness of the pedicle and the "extensive adhesions." If he had known what he had begun to do he would have known how to account for these "extensive adhesions" and the shortness of the pedicle. That he was ignorant of the pathology of the disease is evidenced by a remark he made, that "he had examined the tumor carefully but could not find the ovary;" by this remark he showed his ignorance of the fact that the diseased ovary is the tumor *itself*. This doctor had assisted at one such operation before, but this was his first attempt upon his own responsibility. My experience in this case will henceforth cause me to be very careful how I give my presence on such occasions. H. NYE, M.D.

Enon Valley, Pa. March 23d, 1880.

P. S.—The lady, a married woman, aged 33 years, mother of one girl, 13 years old, wife of a coal miner, in straightened circumstances, I learn, is rapidly recovering. H. N.

The Tobacco Habit.

ED. MED. AND SURG. REPORTER:—

As I wish a little professional advice myself about this vile habit, or rather, its effects, I will prepay, by telling Dr. B. L. L. a sure antidote for the craving after tobacco. It is a fungoid growth on pine trees, known among the voyagers and lumbermen of Canada and the Northern Lake region as "pine apple." Trappers and lumbermen often smoke and chew it when tobacco is not to be had; and considering the number who claim to be anxious to quit the habit, it is strange that so few know of it, for, like the chronic wit in the yearly almanacs, it has been floating about in print for a quarter of a century or more. The Toronto Medical Society discussed it, and gave it a sort of semi-official endorsement. The *Canada Lancet* published it some ten or twelve years ago, and since then I have seen it in one or two of our United States medical periodicals.

I do not wish it to be understood that it will compel a man to quit using tobacco, or that it will give him will power, moral power, or spiritual consolation; but if he has an average amount of these, or can borrow them for three or six months, he can accomplish it. The taste is not unpleasantly bitter, and it should be used about as a moderate chewer would use tobacco. The saliva may be swallowed or not. I have used it myself, and prescribed it, many times, and have never seen a case in which it did not in the end eradicate the craving for tobacco. When that point is reached the antidote can easily be discontinued.

Now, I claim to be one of those who are anxious to quit using tobacco, but have not done so yet. Lest it be thought that I had been unable to borrow the spiritual consolation and other et ceteras above mentioned, I will inform you that three several times I stopped using it, and chewed all the trash enumerated by Drs. Manning and Matlack, and at least ninety-nine not enumerated. Result, the same as theirs, so far as chewing was concerned. But even pine apple failed to change the invariable result, insomnia, not complete, for I would get from one to two and a-half hours sleep each day, or night. At whatever hour the nap occurred I knew it was the last I would get for twenty-four, and probably forty-eight hours. My spirits were good, appetite and digestion normal, as long as narcotics were avoided. They would compel sleep, and at the same time destroy all appetite, and accelerate the otherwise slowly advancing weakness. Each time I persevered until I could not walk fifty yards without support; and each time, within two weeks after commencing its use could sleep as usual and attend to business. For twenty-five or thirty years, when using tobacco, I have chewed about one ounce and a quarter a week, and smoked about twice that weight. Previous to my first trial my weight was 148 lbs.; after my last trial it was 118 lbs.; it is now 128 lbs. Each attempt has left my weight lighter than before, in very nearly the same amount. Now, unless some professional brother can tell me something new, or suggest some new combination to obviate that result, I shall have to stick to my tobacco. F. R. MILLARD, M.D.

San Diego, Cal.

Vaccine from Inoculated Cows.

ED. MED. AND SURG. REPORTER:—

In reply to your request for "more light" on the subject of the inoculation of kine with smallpox virus, my experience may be of some avail.

In 1864, being disgusted with the weak protective power of the humanized virus furnished by the government, I determined to raise my own vaccinia by inoculating cows with smallpox virus. I made a number of experiments on adult animals, and finally on calves. Although every precaution was taken, I never succeeded in obtaining any result whatever, other than an irritated sore. The animals all appeared to be totally incapable of being affected by the smallpox poison. In the fall of the same year Dr. Chase, in charge of the hospital at Jeffersonville, Ind., sent to me for a supply of smallpox virus, in order to make the same experiment.

I learned from his messenger, some months later, that Dr. Chase had also signally failed.

Considering that we had thus subjected the matter to the *experimentum crucis*, I have no longer any belief in the identity of the two diseases.

Titusville, Pa. WM. VARIAN, M.D.

[In the next number of the REPORTER we shall give the most recent and conclusive views on this subject.—ED. REPORTER].

News and Miscellany.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, January 1st to March 31st, 1880.

Bailhache, P. H., Surgeon. Detailed as President of Board of Examiners, to convene in Washington January 26th, 1880. January 14th, 1880.

Miller, T. W., Surgeon. Detailed as member of Board of Examiners, to convene in Washington January 26th, 1880. January 14th, 1880. To proceed to Chattanooga, Tenn., as Inspector. January 28th, 1880.

Wyman, Walter, Surgeon. Granted leave of absence for twenty-one days, from February 7th, 1880. February 6th, 1880.

Murray, R. D., Surgeon. Granted leave of absence for twenty-one days, from April 10th, 1880. March 16th, 1880.

Fessenden, C. S. D., Surgeon. Detailed as Recorder of Board of Examiners, to convene in Washington, January 26th, 1880. January 14th, 1880.

Fisher, J. C.. Assistant Surgeon. To report to Board of Examiners for examination for promotion. January 28th, 1880.

White, Robert, Jr., Assistant Surgeon. Granted leave of absence for thirty days, on account of sickness, from February 23d, 1880. February 21st, 1880.

O'Connor, F. J., Assistant Surgeon. To proceed to Evansville, Ind., and assume charge of the service at that port. March 17th, 1880.

DEATH.

White, Robert, Jr., Assistant Surgeon. At New York, February 24th, 1880.

Medical Graduates.

Up to April 1st the medical colleges reported graduates as follows:—

Jefferson Medical College, 196; Medical College of University of Pennsylvania, 104; Women's Medical College of Philadelphia, 14; Medical College of University of New York, 200; Bellevue Hospital Medical College, 142; College of Physicians and Surgeons, 117; Louisville Medical College, 56; Medical College of the University of Louisville, 95; Louisville Hospital Medical School, 33; Rush Medical College, 144; Cincinnati College of Medicine and Surgery, 28; Miami Medical College, 46; Medical College of Ohio, 119; Medical College of University of Buffalo, 56; Detroit Medical College, 27; Iowa State Medical College, 22; Yale Medical College, 2; Medical College of Virginia, 20; Baltimore College of Physicians and Surgeons, 110; National Medical College, 12; Georgetown Medical College, 10. Total 1553.

State University of Iowa—Medical Department.

The Medical Department of the Iowa State University closed its tenth annual course of lectures March 3d. The degree of M.D., was conferred on twenty-two candidates. The final examinations were conducted in the presence of a committee from the State Medical Society, and were thorough and satisfactory, several candidates failing to pass.

The institution has been steadily growing in favor with the profession of the State, and had an attendance of 162 during the past session, the largest in its history. It has established a graded course of three years, and a preliminary examination, which, though at present optional, a majority of the students entered. This is to be made obligatory at a very early date.

Personal.

—Dr. W. R. D. Blackwood, of this city, has been appointed Physician to St. Mary's Hospital.

OBITUARY NOTICES.

—Dr. Thomas Bevan, a well known member of the profession in Chicago, died suddenly, March 15th, from "acute congestion of the brain," as the Coroner's jury reported. He was 50 years of age, a graduate of the medical college of Ohio, and a writer on sanitary subjects.

QUERIES AND REPLIES.

MR. EDITOR:—Having seen the query of S. C. P., of Ill., and the suggestion of C. H. F., of Ala., in the REPORTER, in regard to chronic urticaria, I would recommend the use of the dilute nitro-muriatic acid, to be given in doses of twenty drops in half a glass of sweetened water, an hour before each meal. I think it will be found as efficacious as it is palatable.

Waco, Texas. J. C. J. KING.

Subscriber, Texas.—You will find the most recent views on the vomiting of pregnancy admirably summarized in the monograph of Dr. Barbiglia, mentioned on page 254, current volume. In English, the etiology is discussed in all the standard treatises, but we recall no special treatise devoted to the subject.

Dr. P. J B., of Texas.—Natural History is such a wide subject, that one work hardly covers it now-a-days. Probably the best popular book is the Rev. J. G. Wood's Illustrated *Natural History*.

Dr. S. C., of Ill., asks whether the continued use of morphia hypodermically has been suspected of causing paralysis.

Ans.—We find no reference to such an effect in Dr. Kane's recent work on the subject.

Dr. S. D. P., of Ill.—We know of no work devoted to maternal impressions, nævi, etc., although many scattered articles have appeared on the subject.

Criticus writes that there is no evidence that Luke, the physician mentioned Colossians IV,14, was the author of the Gospel. The alleged identity rests on a tradition which was merely a guess, because of the identity of the names.

MARRIAGES.

JACOBS—AUGUSTINE.—At the residence of the bride, February 26th, by the Rev. A. K. Felton, Dr. Thos. J. Jacobs, of Somerfield, Pa., and Miss Kate Augustine, of Addison, Pa.

DEATHS.

KNIGHT.—In this city, on the evening of 4th month 1st, Dr. John Knight, aged 36 years.

ROBINSON.—At Bushington, Bucks county, Pa., on March 23d, Mary M. C., wife of Dr. W. T. Robinson.